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Dynamics of Wholesale and Retail Prices of Onion in Kalaburagi Market of Karnataka State

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ABSTRACT

Onion (*Allium cepa*) which is considered to be a major vegetable in daily consumption of human being. Onion is grown across the globe and India stands in the second position in production. The paper attempts to examine the growth in area, production and productivity of onion crop in Karnataka state and also highlights on prices prevailing in the wholesale market and retail market of Kalaburagi city. It was evidenced there was a negative growth rate in productivity during the study period due to major pest incidence among the crop with rot disease and leaf blight infection. The producer share in consumer rupee was an average of 60 per cent indicating that left over is retained by various stake holders which includes the marketing cess and marketing costs associated with onion marketing. The government need to intervene and create awareness among the farmers about new high yielding, disease resistant varieties as well as importance of direct marketing through various channels.

Key words: Production, Whole sale price, Retail price, Disease

India is blessed with adorable climatic conditions for which majority of the crop embellishment in the production. Almost all the fruits and vegetables produced across the globe are produced in the country. India stands in second position in fruits and vegetables production in the world after China. As per the sources of National Horticulture Board, production of fruits during 2020-21 accounted for 102.48 million metric tons and vegetables accounted for 200.45 metric tons [1]. Onion is also called the “King of the Kitchen” the Indian onions are famous for the pungency and which will be available all-round the year. India stands in second position in the production of onion in the world. The production of onion in the country do takes place in two different crop cycles. The first harvesting will be done in the month from November to January and the second harvesting takes place from January to May which is cultivated across the country. The major onion producing states are Maharashtra followed by Karnataka, Madhya Pradesh, Gujarat, Andhra Pradesh [2]. For the production year 2020-21, Maharashtra state had the share of 39 per cent of the production of onion. Having the demand in the domestic market, Indian onions are having huge demand at the international level as a net worth of around Rs. 3432.14 crores of onion was exported [3]. Onion is having the following benefits Organic sulphur compounds helps reduce the level of cholesterol in body and may also help break down blood clots, lowering risk for heart

disease and stroke. The prices of onion is highly volatile, the share of the producer is considerably low as compared to the selling price [4]. The paper attempts to know the growth of area, production and productivity of onion in the Karnataka state. The price variation at the whole sale and retail prices are studied in order to know the level of variation of the prices in the Kalaburagi market.

MATERIALS AND METHODS

The study was conducted using both primary data and secondary data. The primary data regarding the farmers selling price, whole sale price and retail prices were collected by the different stakeholders involved in the marketing process of the onion in Kalaburagi market with well-structured and pretested schedules for the period of April 2020 to April 2022. The secondary information pertaining to area, production and productivity was obtained from the published sources of NHRDF for the period from 2011-12 to 2020-21. In order to arrive at meaningful results following statistical tools were employed.

- Regression analysis
- Instability analysis
- Producer share in consumer rupee
- Price Spread

RESULTS AND DISCUSSION

The (Table 1) presents the growth in area, production and productivity of Onion in Karnataka for the period from 2010-11 to 2020-21. It can be observed from the table that area and

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production are having the positive growth rate but the productivity is declining with a negligible rate. The area under onion which was around 190.50 thousand hectares in the year 2010-11 has increased to 230.40 thousand hectares during 2020-21. The compound annual growth rate registered to be 1.40 per cent per annum in the growth of onion during the study period. The coefficient variation for the area during the study period was 14.77 per cent signifying not much change in the area under onion. With respect to production, during the year 2010-11 the production of onion accounted for 2592.20 thousand MT which increased to 2660.68 thousand MT in the year 2020-21 with the compound annual growth rate of 0.65 per

cent which was found to be significant at five percent probability level. The coefficient of variation was observed to be 13.17 per cent indicating the stability in production of onion in the state. The productivity of the onion crop indicated there is a decline in the yield of the crop as it is evident by negative growth rate of 0.74 per cent per annum [5]. The coefficient of variation indicated that there is no much variation in the productivity of the onion crop which was around 9.77 per cent. The variation in the area was observed due to the failure of the crop because of natural calamities has made the farmers to shift to different crop during the period. The reduction in the yield was mainly due to attack of rot disease and leaf blight infection.

Table 1 Growth rate of area, production and productivity of onion in Karnataka for the period 2010-11 to 2020-21

Year	Area (000 Ha)	Production (000 MT)	Productivity (Ton/ha)
2010-11	190.50	2592.20	13.61
2011-12	177.20	2451.20	13.83
2012-13	159.60	2395.90	15.01
2013-14	136.57	2065.16	15.12
2014-15	186.99	3227.04	17.26
2015-16	190.21	2695.99	14.17
2016-17	217.82	3049.48	14.00
2017-18	195.28	2986.59	15.29
2018-19	166.00	2558.00	15.41
2019-20	160.00	2275.00	14.22
2020-21	230.40	2660.68	11.55
CAGR	1.40 ^{NS}	0.65*	-0.74 ^{NS}
CV	14.77	13.17	9.77

NS- Non significant

*5 Per cent probability level

Data depicted in (Table 2) reveals the wholesale and retail prices of onion in Kalaburagi market. The prices were collected for the period from April, 2020 to April 2022. It was observed from the table that there is a difference in the prices of onion between retail price and wholesale price. The highest difference in prices of onion was observed for the month of February and March 2022 to the extent of Rs 20.54 and Rs 20.74 per kg of onion. The variation observed was mainly due to the demand of the produce in the retail market. The minimum variation in prices of onion was observed during the month of June 2020 which accounted for Rs. 4.33 which was mainly due to the impact of Covid-19 and the relaxation in lockdown by the Government of Karnataka. The overall observation was observed with not much of variation as it was around the average difference in the price around Rs. 12 per kg during the study period. During the first lockdown in 2020, the onion was being harvested and there were no buyers and the transport movement was restricted within and outside the state. With most market yards remaining closed, onions prices were falling to a record low. Therefore, the average wholesale price during this period was Rs.7.50 per kg in the month of April 20, Rs. 8.51 per kg on May 20. And the trend followed till July 2020.

In between comes the fresh onion crop harvested in the month of August. In the year 2020, the monsoon disrupted the cycle. Due to heavy rains, most of the Kharif crop got damaged and the supply was affected due to which there was a rise in the prices of onions in the month of September 2020 till the mid of December 2020. The wholesale average price during the above period was Rs. 35.86 per kg. for September, Rs.73.41 per kg for October, and 58.20 for the month of November. The onion prices were seen as stable between mid-December 2020 to February 2021. This was because of the arrivals in the late Kharif crop. Onion prices started rising from September 2021,

due to rains that disrupted the supply chain, moreover, Prices of onions are cheaper than last year during the months of September to November. Onion prices are being also stabilized through buffer stock Prices of onion remained substantially stable during 2021-22 due to effective market intervention through the price stabilization and maintaining buffer stock [6].

The prices of onions have crashed across the state following a bumper crop in march 2022 and farmers have no option left but to sell onions at lower prices in whole sale markets. Prices of Onion in the wholesale market in Kalaburagi for the period of two years i.e., from 15th April 2020 –to 15th April 2022 are presented in the above table. The average price of Onion was recorded highest in October 2020, i.e. (Rs. 73.419/ Kg), while the lowest price was recorded in the month of April 2020 (Rs. 7.500/ Kg). The same follows for the retail market price for Onion in the Kalaburagi city for the following period [7]. The highest average retail price was recorded in the month of October 2020, i.e. (Rs. 87.742/ Kg) and the lowest price in the month of May 2020, i.e. (Rs. 14.516/Kg).

The difference between the wholesale and retail price of Onion in Kalaburagi city was more during the month of February and March, which was Rs. 20/ Kg due to a significant drop in the supply of onions to the wholesale market [8]. The highest margin received by retailers was in the month of April 2020, i.e. (125%) it is because the wholesale price during this month was very low compared to the rest of the year, i.e. (Rs. 7.500/ Kg).

The producer's share in the consumer's rupee for Onion at the time of sale was analyzed and presented in (Table 2). In the retail markets of Kalaburagi city, it was observed that the producer's share in the consumer's rupee was highest in the month of October 2020 (75.309 percent) and lowest in the month of April 2020 (40 percent).

Table 2 Wholesale and retail prices of onion in Kalaburagi market

Year	Months	Whole sale price	Retail price	Difference in price
2020	April	7.50	16.88	9.38
	May	8.52	14.52	6.00
	June	13.83	18.17	4.33
	July	11.90	17.74	5.84
	August	16.55	24.35	7.81
	September	35.87	48.50	12.63
	October	73.42	87.74	14.32
	November	58.20	73.67	15.47
	December	29.45	41.94	12.48
	January	28.45	39.84	11.39
	February	31.71	38.93	7.21
	March	15.35	21.77	6.42
2021	April	9.77	19.00	9.23
	May	10.36	20.00	9.64
	June	16.07	24.83	8.77
	July	20.29	29.19	8.90
	August	22.71	33.87	11.16
	September	22.40	33.50	11.10
	October	24.90	35.16	10.26
	November	30.50	41.00	10.50
	December	32.74	45.00	12.26
2022	January	27.29	37.42	10.13
	February	29.39	49.93	20.54
	March	18.23	38.97	20.74
	April	10.47	18.67	8.20

Table 3 Price spread and producers share in consumer rupee of onion in Kalabauragi market

Year	Months	Farmers selling price	Consumer purchase price	Producer share in consumer rupee	Price spread
2020	April	6.75	16.88	40.00	10.13
	May	7.67	14.52	52.80	6.85
	June	12.45	18.17	68.53	5.72
	July	10.71	17.74	60.38	7.03
	August	14.89	24.35	61.14	9.46
	September	32.28	48.50	66.56	16.22
	October	66.07	87.74	75.30	21.67
	November	52.38	73.67	71.10	21.29
	December	26.50	41.94	63.19	15.44
	January	25.60	39.84	64.26	14.24
	February	28.54	38.93	73.31	10.39
	March	13.89	21.77	63.79	7.88
2021	April	8.79	19.00	46.26	10.21
	May	9.32	20.00	46.62	10.68
	June	14.46	24.83	58.23	10.37
	July	18.26	29.19	62.55	10.93
	August	20.43	33.87	60.32	13.44
	September	20.16	33.50	60.18	13.34
	October	22.41	35.16	63.73	12.75
	November	27.45	41.00	66.95	13.55
	December	29.46	45.00	65.47	15.54
2022	January	24.56	37.42	65.63	12.86
	February	26.45	49.93	52.98	23.48
	March	16.40	38.97	42.09	22.57
	April	9.42	18.67	50.46	9.25
Average		21.81	34.82	60.07	13.01
Coefficient of variation		63.00	50.53	15.60	38.07

Price spread and producers share in consumer rupee of onion in Kalaburagi market is presented in (Table 3). As it is evident from the table, coefficient of variation was maximum in farmers selling price with 63 per cent during the study period which clearly indicates the high volatility of the selling price by the farmer. The consumer purchase price variation registered to

be 50.53 per cent indicating the degree of volatility in the prices of onion in the retail market [9]. Coefficient of variation for producer share in consumer rupee recorded to be 15.60 per cent indicating the stability of prices inferring there is not much variation in receipt of the amount for the produce by the farmer. While the price spread registered to be 38.07 per cent of

coefficient of variation. The highest price for the produce was obtained by the farmer was during October 2020 with Rs 66.07 per kg and minimum was for the month of April 2020 with Rs 6.75 per kg [10]. The producer share in consumer rupee during the study period was around was 60.07 per cent indicating there is gap of 40 per cent. The price spread indicated that there was an average difference of Rs. 13.01 per kg in between the consumer and producer which indicates the significant role and benefit of middlemen in procuring and selling of the produce [11-12].

CONCLUSION

The overall results indicate there is a need of awareness among the farmers about high yielding Bhīma varieties of onion crop which are recently released by IIHR. The state government need to take necessary initiatives in creation of awareness about the high yielding and disease resistant varieties through the help of KVK, Agricultural Departments State Agricultural Universities etc. The variation in prices indicated that there is a major share of middlemen as it is evident from the producers share in consumer rupee as well as price spread. The direct marketing of the produce as well as referring to the price intelligence reports by the farmers may be conducted in order to gain more in the income of the farmers.

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